

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



FIRES ON FARMS



Leaflet No. 44

Rev.ed.
follows



U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF CHEMISTRY AND SOILS



Issued October, 1929



LIBRARY

OF

THE UNIVERSITY OF CHICAGO



THE UNIVERSITY OF CHICAGO
CHICAGO, ILL.

1917

FIRES ON FARMS

By HARRY E. ROETHE, *Engineer, Chemical Engineering Division, Chemical and Technological Research, Bureau of Chemistry and Soils*

Fire of undetermined origin destroyed the barn, the granary, the silo, and the machine shed on the John Smith farm, 3 miles west of here yesterday. Only the prompt arrival and effective work of fire-fighting apparatus from near-by towns saved the home. Ten cows, four horses, all hay, ensilage, grain, and machinery were also destroyed. This fire represents a loss of about \$20,000, covered by but a few thousand dollars of insurance.



FIGURE 1.—The result of a barn fire

Thus reads a news item in a country newspaper. A serious loss to this unfortunate farmer! But he is only one of thousands of farmers in the United States who suffered from the fire demon during the past year.

ANNUAL LOSS

The yearly loss from fires on farms and in rural communities of this country has been estimated to run as high as 3,500 lives and \$150,000,000 worth of property.

CAUSES OF FARM FIRES

There are numerous causes of farm fires. Here is a list of the principal causes—eight of them:

Spontaneous or self-ignition of hay and other agricultural products.

Lightning.

Defective chimneys and flues.

Sparks on combustible roofs.

Careless use of matches; smoking.

Careless use and storage of gasoline and kerosene.

Defective heating equipment.

Faulty wiring and improper use of electric appliances.



FIGURE 2.—Spontaneous ignition of hay caused this destruction

These eight causes are responsible for more than two-thirds of the estimated annual loss of \$150,000,000. The remaining loss is ascribed to 12 miscellaneous known causes and unknown or undetermined causes.

HOW THE FARMER CAN AID IN REDUCING FIRE LOSS

SPONTANEOUS IGNITION OF HAY

Properly cure hay before storing it.

Add salt (0.5 per cent by weight) to damp or improperly cured hay as it is placed in the barn or in stacks.

Guard against leaky roofs and leaky sides of barns.

Ventilate hay as freely as possible immediately after it has been stored.

Hay in the mow or stack which is at all suspicious should be examined frequently. If the hay a few feet from the surface is too hot for the hand to be held in, examine it thoroughly to ascertain the condition of the interior. In addition, get in touch with your State or Federal authorities.

LIGHTNING

Equip major buildings with properly installed and well-maintained lightning rods. A substantial metal roof with all parts in good electrical contact and with proper grounding also offers good lightning protection.

Protect livestock by grounding at reasonable distances all wire fences inclosing pastures or yards.

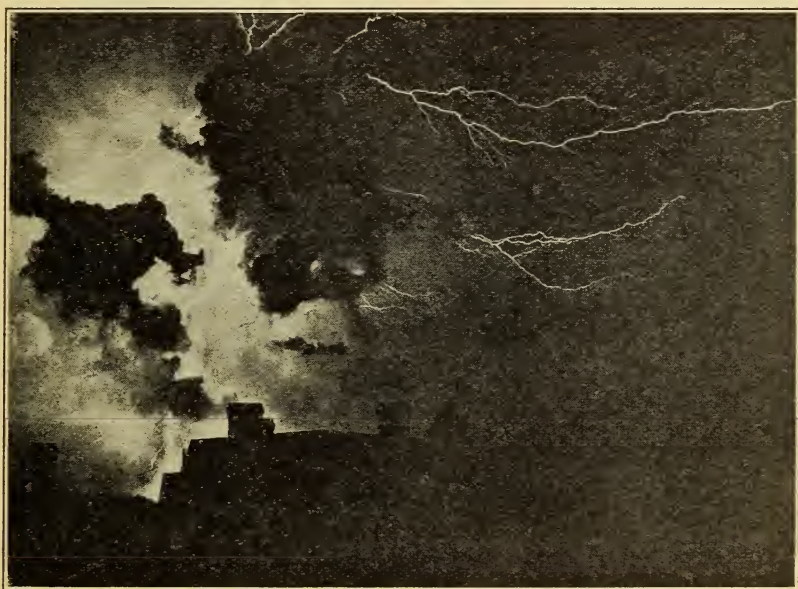


FIGURE 3.—The lightning hazard can be controlled

CHIMNEYS AND FLUES

Properly construct chimneys and flues and maintain them in good condition.

SPARKS ON COMBUSTIBLE ROOFS

Use good, fire-resistant roofing materials.

MATCHES; SMOKING

Use only safety matches on the premises.

Keep matches away from children.

Do not permit smoking in barns or near combustible materials.

GASOLINE AND KEROSENE

Store small quantities of gasoline and kerosene in original container in an isolated location; place large quantities of gasoline in an underground tank equipped with a pump.

Never use gasoline or kerosene to quicken or revive a fire.

Do not use flammable liquids for cleaning purposes in the home.

HEATING EQUIPMENT

See that heating equipment is properly installed, operated, and maintained.



FIGURE 4.—Chimney sparks on the roof fired this home

ELECTRICITY AND APPLIANCES

See that electrical wiring meets the requirements of the National Electrical Code.

Disconnect electric appliances when not in use.

WASTE AND RUBBISH

Keep the premises free from litter and rubbish.

Burn or place in metal receptacles oily waste and rags—they may ignite spontaneously.

Do not pile horse manure in stables or against buildings—it may heat enough to cause a fire.

FIRE PROTECTION

Eliminate all possible fire hazards but be prepared to fight fires in case they occur. Ladders, axes, chemical extinguishers, and water pails, and barrels or tanks equipped with pumps should be available on every farm.



FIGURE 5.—After the fire

A water-pressure system affords a desirable source of water supply. Rural communities should have adequate motorized fire apparatus and a trained volunteer fire department.

The Department of Agriculture is studying the causes of fires on farms and is developing means for prevention. Information on farm fire prevention will be gladly furnished on request.

